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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)
Joseph R. LAKOWICZ et al.)
Serial No. 09/786,627) Examiner: To Be Assigned
Filed: April 17, 2001) Group Art Unit: To Be Assigned
For: LOW FREQUENCY MODULATION SENSORS USING
NANOSECOND FLUOROPHORES

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Under the provisions of 37 C.F.R. §§ 1.56, 1.97 and 1.98,
Applicants submit herewith copies of publications that the
Office may wish to consider in examination of the subject
application. The publications are listed on the attached form
PTO-1449.

Respectfully submitted,

By

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Enclosures

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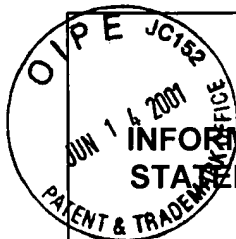
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT***Complete if Known*

INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number		09/786,627
				Filing Date		April 17, 2001
				First Named Inventor		Joseph R. LAKOWICZ
				Group Art Unit		To Be Assigned
				Examiner Name		To Be Assigned
Sheet	1	of	2	Attorney Docket Number		2542-101

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code (if known)		
		5,030,832		Williams et al.	07/09/1991
		5,448,992		Kupershmidt	09/12/1995
		5,527,684		Mabile et al.	06/18/1996
		5,770,454		Essenpreis et al.	06/23/1998

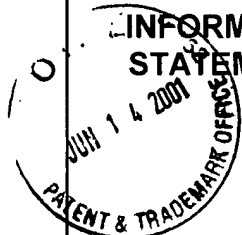
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		Shabbir B. BAMBOT et al., "Sensing oxygen through skin using a red diode laser and fluorescence lifetimes," Biosensors & Bioelectronics 10(6/7):643-652 (1995).	
		Felix N. CASTELLANO et al., "Long-Lifetime Ru(II) Complexes as Labeling Reagents for Sulfhydryl Groups," Analytical Biochemistry 255:165-170 (1998).	
		Enrico GRATTON et al., "Resolution of Mixtures of Fluorophores Using Variable-Frequency Phase and Modulation Data," Biophys. J. 46:479-486 (October 1984).	
		Ignacy GRYCZYNSKI et al., "Effects of Light Quenching on the Emission Spectra and Intensity Decays of Fluorophore Mixtures," J. of Fluorescence 7(3):167-183 (1997).	
		Xiang-Qun GUO et al., "A Long-Lived, Highly Luminescent Re(I) Metal-Ligand Complex as a Biomolecular Probe," Analytical Biochemistry 254:179-186 (1997).	
		Xiang-Qun GUO et al., "Use of a Long-Lifetime Re(I) Complex in Fluorescence Polarization Immunoassays of High-Molecular-Weight Analytes," Anal. Chem. 70(3):632-637 (February 1, 1998)	
		Nectarios KLONIS et al., "Spectral Properties of Fluorescein in Solvent-Water Mixtures: Applications as a Probe of Hydrogen Bonding Environments in Biological Systems," Photochemistry and Photobiology 67(5):500-510 (1998).	
		Joseph R. LAKOWICZ et al., "Frequency-Domain Fluorescence Spectroscopy," Topics in Fluorescence Spectroscopy, Vol. 1: Techniques, pp. 293-335, Plenum Press, New York, 1991.	

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²Applicant is to place a check mark here if English language Translation is attached.



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Sheet 2 of 2	Attorney Docket Number 2542-101

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		Joseph R. LAKOWICZ et al., "Construction and Performance of a Variable-Frequency Phase-Modulation Fluorometer," Biophysical Chemistry 21:61-78 (1985).	
		Joseph R. LAKOWICZ et al., "Analysis of Fluorescence Decay Kinetics From Variable-Frequency Phase Shift and Modulation Data," Biophys. J. 46:463-477 (October 1984).	
		Joseph R. LAKOWICZ et al., "Emerging Biomedical and Advanced Applications of Time-Resolved Fluorescence Spectroscopy," Journal of Fluorescence 4(1):117-136 (1994).	
		Joseph R. LAKOWICZ et al., "Metal-ligand complexes as a new class of long-lived fluorophores for protein hydrodynamics and fluorescence polarization immunoassay," Proc. SPIE Vol. 2388:32-41 (1995).	
		Max E. LIPPITSCH et al., "Luminescence lifetime-based sensing: new materials, new devices," Sensors and Actuators B 38-39:96-102 (1997).	
		Lisa RANDERS-EICHHORN et al., "On-line Green Fluorescent Protein Sensor with LED Excitation," Biotechnology and Bioengineering 55(6):921-926 (1997).	
		Jeffrey SIPIOR et al., "Single quantum well light emitting diodes demonstrated as excitation sources for nanosecond phase-modulation fluorescence lifetime measurements," Rev. Sci. Instrum. 67(11):3795-3798 (November 1996).	
		Jeffrey SIPIOR et al., "Blue light-emitting diode demonstrated as an ultraviolet excitation source for nanosecond phase-modulation fluorescence lifetime measurements," Rev. Sci. Instrum. 68(7):2666-2670 (1997).	
		Henryk SZMACINSKI et al., "Frequency-Domain lifetime measurements and sensing in highly scattering media," Sensors and Actuators B 30:207-215 (1996).	

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